



## Dinwiddie County and the Town of McKenney

### Water Source Overview

Major water sources include agricultural ponds, Booth Run, purchased water, and groundwater wells.

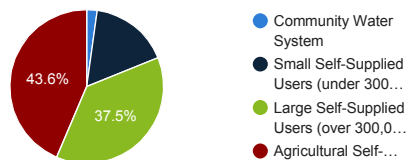
**\*Table 1:** Reported (2010) and projected (2040) water use by system type for Dinwiddie County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	0.102	0.204
Small Self-Supplied Users (under 300,000 gal/month)	0.777	0.902
Large Self-Supplied Users (over 300,000 gal/month)	1.746	3.216
Agricultural Self-Supplied Users	2.028	3.736

### Water Use by System Type

Approximately 13,570 people use private groundwater wells for residential water supply. All tables and graphs represent reported water use including Sales to other localities, if applicable.

**\*Figure 1:** Percentage of reported water use by system type in 2010 (No use data shown on graph if less than .01 MGD: Refer to Table 1)



**\*Figure 2:** Disaggregated water use percentages for Community Water Systems in 2010 (No graph shown if no disaggregated use data reported)

**\*Table 2:** Reported (2010) and projected (2040) groundwater and surface water use for Dinwiddie County in MGD

Reported 2010 Groundwater Use (MGD)	Reported 2010 Surface Water Use (MGD)	Projected 2040 Groundwater Use (MGD)	Projected 2040 Surface Water Use (MGD)
1.38	3.27	2.02	6.04

**\*Figure 3:** Dinwiddie County highlighted in the Commonwealth of Virginia



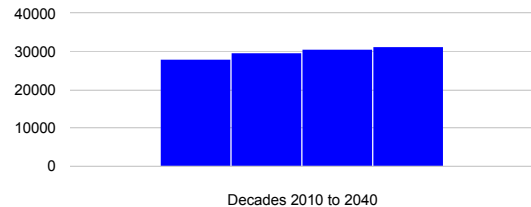
### Projected Water Demand

Population and demand are projected to increase through the planning period of 2040. The Appomattox River Water Authority (main supplier of water to Dinwiddie County) anticipates a system wide deficit of 9.4 MGD by the year 2040. Possible alternatives recommended: increases in current water supply allocations and the development of additional supplies (groundwater sources, new intake on the Appomattox River, and a new surface water reservoir).

**\*Table 3:** Dinwiddie County population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/20/13)

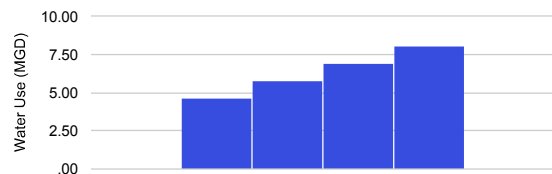
2010	2020	2030	2040	% Change (2010-2040)
28,001	29,542	30,516	31,276	10.7%

**\*Figure 4:** Dinwiddie County population projections by decade for 2010, 2020, 2030 & 2040



**\*Table 4 & Figure 5:** Dinwiddie County water demand trends by decade for 2010, 2020, 2030 & 2040 in MGD

Reported Use 2010 MGD	Projected Use 2020 MGD	Projected Use 2030 MGD	Projected Use 2040 MGD	Percent Change (2010-2040)
4.65	5.79	6.92	8.06	73.2%



### Drought Management Practices

Both the County and the Town have adopted ordinances for the implementation and enforcement of the Drought Response and Contingency Plan. (Appomattox River Water Authority and the City of Hopewell Regional WSP)